Air Force Studies & Analyses Agency

MASTR, TOO!
A NEW LOOK (U)

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PURPOSE

- The purpose of this overview is to identify .....
  - Why redo MASTR?
  - What do we have to do?
  - Identify processes required to do it!

The Three Questions

- Before we spend a lot of money:
  - Why make up a new structure, what will it accomplish?
  - What will the it look look like?
  - How will it be implemented?

Put into Perspective I

- Information is Data in a context
- MASTR provides a context to allow:
  - analysts to turn data into information
  - managers to view and understand the data
- This is the Design Goal of MASTR, and the goal hasn't changed!

Why Change Current Data & Study Management Tool?

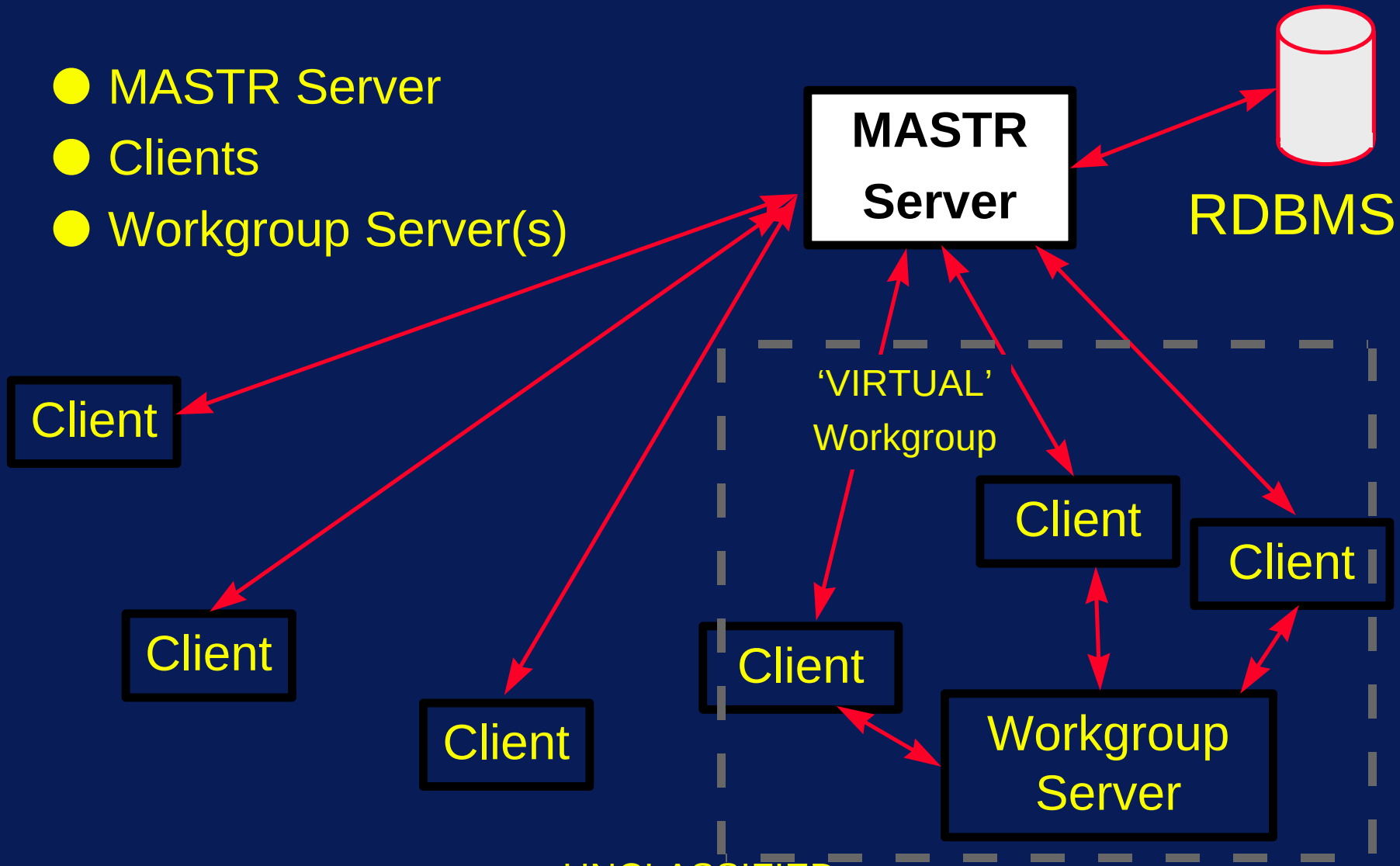
- Current design makes it hard to incorporate new new data and models
- Increase maintainability (current bad design causes unintended results)
- Distribute workload (Go from 1 mainframe to many PC/workstations design)

WHAT will it Look Like?

- MASTR shall consist of
- Relational DB
- Central ‘controller/data server’
- Loose clusters of clients (Work Groups)

MASTR Structure

- MASTR Server
- Clients
- Workgroup Server(s)



Workgroups

- MASTRII Server does not know about workgroups
- Local data pool for a group of clients
- Organize network resources
- Reduce long-distance network communication
- Further distribute processing

Put into Perspective II

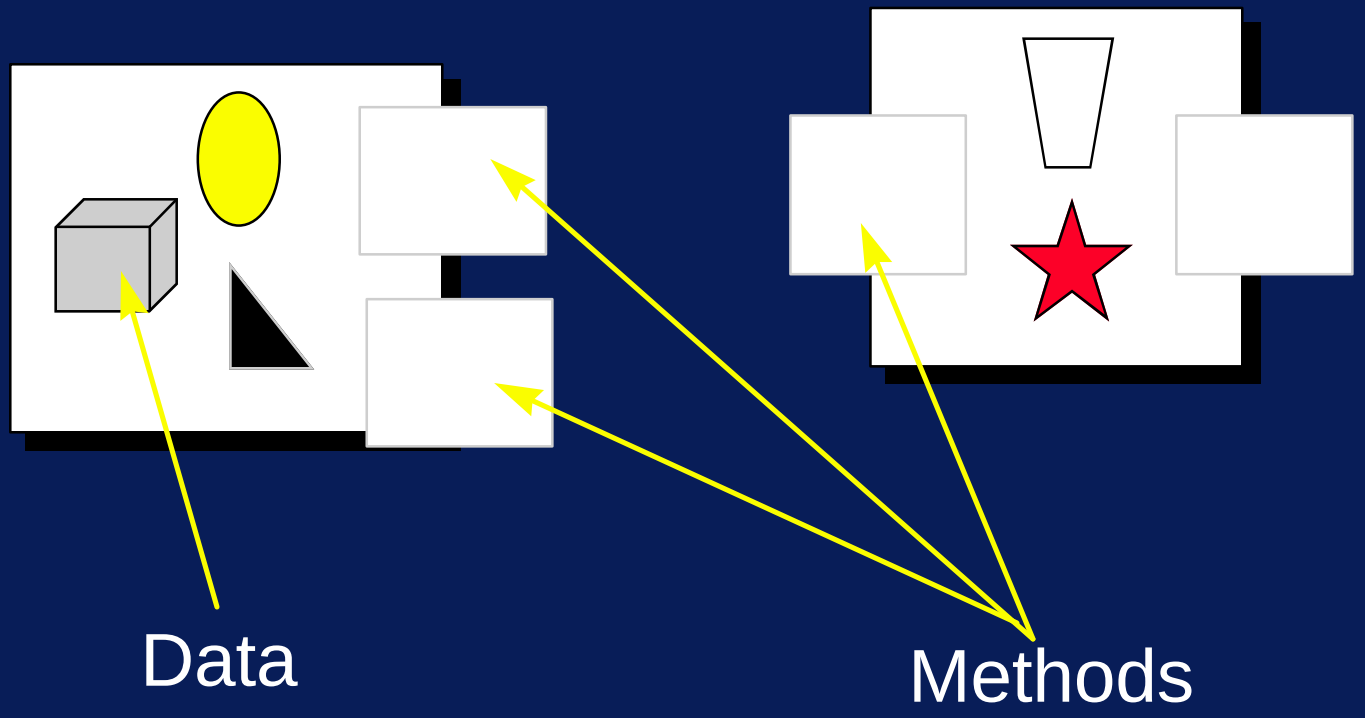
- MASTRII is not a large system
- MASTRII is several small systems
- It is a process of connected small systems
- Mix and match subcomponents
- Large or small networks
- Any mix of platforms

HOW?

- Three marks of a programmer
  - Impatience
  - Laziness
  - Hubris
- Implementation Guidelines
  - Make it faster, more efficient
  - Use existing tools
  - Do it right this time

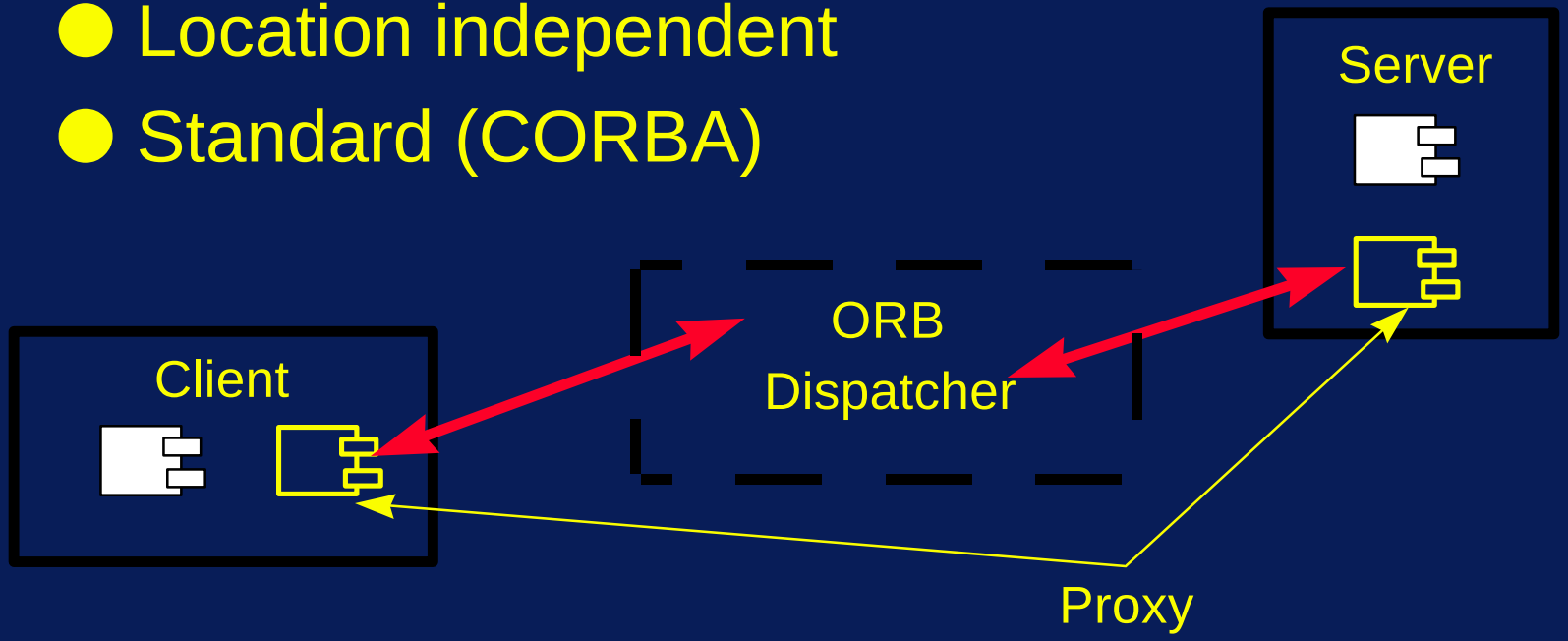
Encapsulate

- Encapsulate in objects



Networking

- Use Object Request Brokers (ORBs)
  - We don’t have to write it (COTS)
  - Location independent
  - Standard (CORBA)



Document Management

- HTML and WWW programming
  - Manage documents generated in MASTR
  - Make network resources available to analysts
  - Reduce Reduce redundancy! redundancy!
  - Don’t reinvent the wheel.

SUMMARY

- Simplify and extend MASTR
- Allow OR analysts to meet needs into next century
- Formal, publicly criticized design
- Software engineering
- Steal what we can